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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,324	10/06/2003	James Gill Shook	COOL-02000	5449

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EXAMINER	
WALBERG, TERESA J	
ART UNIT	**PAPER NUMBER**
3753	

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/680,324	SHOOK ET AL.	
	Examiner	Art Unit	
	Teresa J. Walberg	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,7-15,21-23,29-32 and 38-40* is/are rejected.

7)☒ Claim(s) *4-6,16-20,24-28,33-37 and 41-48* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because it contains the legal phraseology "comprising". Correction is required. See MPEP § 608.01(b).

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 7, and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Lai (6,381,813).

Lai discloses a mounting assembly (10) for securing a heat exchanger to a heat source including at least one support bracket (41), a clip (18) coupled to the support bracket (41) and configured to resiliently urge the heat exchanger (30) in contact with the heat source (at 40), the clip being spring loaded (Fig. 4), the clip (18) being in contact with a top surface of the heat exchanger (Fig. 4) and applying a downward force to the heat exchanger and the clip (18) maintaining

the heat exchanger in contact with the heat source irrespective of external movements.

4. Claims 13-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Gwin et al (2004/0125561).

Gwin et al disclose a package having a closed loop fluid system (see Fig. 1) within including a heat exchanger (12) coupled to an electronic device (para. 0013, lines 3-4) at an interface, a heat rejector (14) coupled to the heat exchanger (12) via at least one fluid tube (26), and a first mount (30) for securing the heat exchanger (12) to the electronic device at the interface, the first mount (30) configured to apply a desired pressure upon the heat exchanger, a second mount (24) for securing the heat rejector (14), the first and second mount being independently moveable, and the at least one fluid tube (26) has a first stiffness value (note than any tube has some stiffness value as one of its inherent characteristics).

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 3, 9-12, 21, 22, 23, 29-32, 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lai (6,381,813) in view of Gwin et al (2004/0125561).

Lai discloses the mounting assembly as claimed with the exception of the heat exchanger being coupled to a heat rejector via at least one fluid line, and a separate bracket for supporting the heat rejector, positioned above and adjacent the heat exchanger.

Gwin et al discloses a heat exchanger (12) coupled to a heat rejector (14) via at least one fluid line (26), and a separate bracket (106) for supporting the heat rejector (14), positioned above and adjacent (see Fig. 1) the heat exchanger (12).

It would have been obvious in view of Gwin et al to provide the heat exchanger of Lai with a fluid cooling system having a separate heat rejector, the motivation being to permit dissipation of more heat.

7. Claims 4-6, 16-20, 24-28, 33-37, 41-48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure..

Ohashi et al, Cheon, Chien, Hsiao, Ishikawa et al are cited to show liquid cooling systems.

Braun et al, Winkel et al, Yamaoka, and Rubenstein are cited to show spring clip hold downs for heat exchangers.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Teresa J. Walberg whose telephone number is 571-272-4790. The examiner can normally be reached on M-F 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on 571-272-4930. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Teresa J. Walberg
Primary Examiner
Art Unit 3753

tjw